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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,097	09/07/2005	Thomas Mueller	14603-012US1	2670

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EXAMINER	
NATALINI, JEFF WILLIAM	
ART UNIT	PAPER NUMBER
2831	

NOTIFICATION DATE	DELIVERY MODE
09/30/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	10/526,097	MUELLER, THOMAS	
	Examiner	Art Unit	
	JEFF NATALINI	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2008*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-8,10 and 12-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-8,10 and 12-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 October 2007* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the labeling is very faint on figures 1 and 3 submitted on the replacement sheet 10/26/07, please resubmit these figures where the labeling can be seen. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (7043109) in view of Diab et al. (US Publication 2001/0020123).

In regard to claim 1, Kish et al. disclosed method (Fig. 17,23) for use with an integrated circuit (PIC) that is light-sensitive, the method comprising: applying different wavelengths (Fig. 33,34) of light 132 from external light source (laser)(column 21 line 62,63) to the integrated circuit, the integrated circuit producing output signals in response to the different wavelengths of light, measuring the output (column 21 line 63) signals to obtain measured values; comparing the measured values to setpoint values 140 (desired output) that correspond to the different wavelengths of light, obtaining correction values (calibrate data) for the different wavelengths of light, the correction values being based on comparison 140 of the measured values to the setpoint value 140 (desired output) and storing (144,232) (Fig. 17,23) the correction values on the integrated circuit (column 34 lines 6-10); wherein the integrated circuit is on a semiconductor substrate 32 (Fig. 6) and testing is performed using testing card 200 (probe card) (Fig. 22).

Kish lacks specifically wherein the different wavelengths of light are applied via light-emitting diodes that are mounted to the testing card.

It is common in the art that lasers and light emitting diodes are measured for wavelengths of light, and Diab et al. discloses wherein different wavelengths of light are applied via light emitting diodes, wherein the wavelengths are monitored (paragraphs 71

and 72) and wherein the light emitting diodes (figure 7, 254 and 256) are mounted to a testing card (figure 7, connector and it's components).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Kish to include having light emitting diodes mounted to a testing circuit, wherein the light emitting diodes would apply the different wavelengths of light as taught by Diab et al. in order to have a system to obtain a precise wavelength for an accurate measurement system (abstract).

In regard to claim 6, Kish et al. disclose wherein the integrated circuit comprises one or more photodiodes PD (Fig. 37).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (7043109) and Diab et al. (US Publication 2001/0020123) as applied to claim 1 above, and further in view of De Vries et al. (5736848).

In regard to claim 7, Kish et al. as modified discloses all of the claimed limitations as set forth above except wherein correction values are stored using zener diodes.

De Vries et al. discloses measurement and calibration system wherein memory 11 is provided with zener diode for storing a digital calibration value.

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. as modified by providing memory with zener diode disclosed by De Vries et al. for storing a digital calibration value.

4. Claims 8, 10, and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (7043109) in view of Kai et al. (US Publication 2002/0070359).

In regard to claims 8, 10, 12, and 13, Kish et al. discloses a method/apparatus (Fig. 17,23) for use with an integrated circuit (PIC) that is light-sensitive, providing different wavelengths (Fig. 33,34) of light 132 from external light source (laser)(column 21 line 62,63) to the integrated circuit, the integrated circuit producing output signals in response to the different wavelengths of light, measuring the output (column 21 line 63) signals to obtain measured values; comparing the measured values to setpoint values 140 (desired output) that correspond to the different wavelengths of light, obtaining correction values (calibrate data) for the different wavelengths of light, the correction values being based on comparison 140 of the measured values to the setpoint value 140 (desired output) and storing (144,232) (Fig. 17,23) the correction values on the integrated circuit (column 34 lines 6-10).

Kish et al. lacks specifically a temperature sensor for measuring temperature of light source and correction data derived from the temperature.

Kai et al. discloses a temperature sensor that determines a temperature of the light sources, and uses the output of the temperature sensor to control the oscillation wavelengths by compensation for temperature conditions (abstract).

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. by adding a temperature sensor for measuring the temperature of light source for correction of the wavelengths as taught by

Kai et al. in order to be able to easily control the wavelength in the system (page 1 paragraph 10).

In regard to claim 14, Kish et al. discloses wherein the integrated circuit is on a semiconductor substrate 32 (Fig. 6).

In regard to claim 15, Kish et al. disclose wherein the integrated circuit comprises one or more photodiodes able to receive different wavelengths of light PD (Fig. 37).

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (7043109) and Kai et al. (US Publication 2002/0070359) as applied to claim 8 above, and further in view of De Vries et al. (5736848).

In regard to claim 16, Kish et al. as modified discloses all of the claimed limitations as set forth above except wherein correction values are stored using zener diodes.

De Vries et al. discloses measurement and calibration system wherein memory 11 is provided with zener diode for storing a digital calibration value.

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. as modified by providing memory with zener diode disclosed by De Vries et al. for storing a digital calibration value.

6. Claims 17 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (7043109) and Diab et al. (US Publication 2001/0020123) as applied to claim 1 above, and further in view of Schmeizer (US Publication 2002/0048022).

Kish et al. as modified discloses (claim 5) wherein information is stored on the integrated circuit (column 34 lines 6-10).

Kish et al. as modified lacks (claim 17) wherein the measured values define a sensitivity curve, wherein a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a relative maximum and a relative minimum on the sensitivity curve and (claim 5) wherein the sensitivity curve is obtained by interpolating between measured values.

Schmeizer et al. discloses a sensitivity curve (figure 2) based on measured values of wavelengths from LEDs or lasers (page 3 paragraph 21), wherein a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a relative maximum and a relative minimum on the sensitivity curve (figure 2, many samples are taken so intervals between wavelengths are small), wherein the sensitivity curve is obtained by interpolating between measured values (see abstract and also the line connecting the dots/squares/triangles is a broad sense of interpolating).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Kish et al. as modified to include a sensitivity curve using interpolation with many measurements, so that a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a relative maximum and a relative minimum on the sensitivity curve, as taught by Schmeizer et al. in order to measure the quality of dispersion or distribution of the measured values in a matrix (page 1 paragraph 4).

7. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kish et al. (7043109) and Kai et al. (US Publication 2002/0070359) as applied to claim 8 and 10 above, and further in view of Schmeizer (US Publication 2002/0048022)

In regard to claims 18 and 19, Kish et al. as modified discloses wherein the integrated circuit (PIC) has a sensitivity that is wavelength dependent (i.e. the integrated circuit is sensitive to different wavelengths of laser).

Kish et al. as modified lacks wherein the measured values define a sensitivity curve, wherein a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a relative maximum and a relative minimum on the sensitivity curve, in part, by the two measured wavelengths.

Schmeizer et al. discloses a sensitivity curve (figure 2) based on measured values of wavelengths from LEDs or lasers (page 3 paragraph 21), wherein a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a relative maximum and a relative minimum on the sensitivity curve (figure 2, many samples are taken so intervals between wavelengths are small).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Kish et al. as modified to include a sensitivity curve using with many measurements, so that a smallest interval between two of the different wavelengths on the sensitivity curve is smaller than an interval between a relative maximum and a relative minimum on the sensitivity curve, as taught by Schmeizer et al.

in order to measure the quality of dispersion or distribution of the measured values in a matrix (page 1 paragraph 4).

Response to Arguments

8. Applicant's arguments with respect to claims 1, 5-8, 10 and 12-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Additional pertinent art includes:

Ichijo (US Publication 2006/0244965) discloses a light scattering particle detector which is able to detect a wavelength emitting from an LED or laser.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFF NATALINI whose telephone number is (571)272-2266. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Natalini/
Examiner, Art Unit 2831